response is accompanied by a Mark-Up version of the amendments pursuant to 37 C.F.R. 1.121, an Examiner's Courtesy Copy of the claims pending upon entry of this amendment and an Amendment Transmittal. The time set for this response is April 14, 2003.

It is believed that no fees are required for these submissions. However, should the United States Patent and Trademark Office determine that any fee is due or that any refund is owed for this application, the Commissioner is hereby authorized and requested to charge the required fee(s) and/or credit the refund(s) owed to our Deposit Account No. 04-0100.

IN THE CLAIMS:

Please amend the claims pursuant to 37 C.F.R. 1.121 as follows (see the accompanying "marked up" version pursuant to 1.121):

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28. (Twice Amended) A method of screening for a compound that increases activity of an Sp1 or B segment-binding β_3-adrenergic receptor (β_3-AR) *trans*-activating factor in human cells, which method comprises:

C1

(a) contacting cells capable of producing the Sp1 or B segment-binding β_3-AR *trans*-activating factor with a test compound; and

(b) detecting an increase in a level of activity of the Sp1 or B

segment-binding β_3-AR *trans*-activating factor,

C1 Cont wherein the increase in the level of activity of the Sp1 or B segment-binding β_3-AR *trans*-activating factor results in an increase in the level of β_3-AR gene product relative to a level of expression prior to contact with the test compound.

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33. (Twice Amended) A method of screening for a compound that inhibits activity of an Sp1 or B segment-binding β_3-adrenergic receptor (β_3-AR) *trans*-activating factor in human cells, which method comprises:

(a) contacting cells capable of producing the Sp1 or B segment-binding β_3-AR *trans*-activating factor with a test compound; and

C2

(b) detecting a decrease in a level of activity of the Sp1 or B segment-binding β_3-AR *trans*-activating factor,

wherein the decrease in the level of activity of the Sp1 or B segment-binding β_3-AR *trans*-activating factor results in a decrease in the level of β_3-AR gene product relative to a level of expression prior to contact with the test compound.

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38. (Amended) A method of screening for a compound that increases activity of a β_3-adrenergic receptor (β_3-AR) *trans*-activating factor in human cells,

C3 which method comprises:

(a) contacting cells capable of producing the β_3-AR

trans-activating factor with a test compound; and

(b) detecting an increase in a level of activity of the β_3-AR *trans*-activating factor,

wherein the level of activity of the β_3-AR *trans*-activating factor is detected by an increase in the level of expression of a reporter gene operatively associated with an isolated nucleic acid selected from the group consisting of:

(i) about a 7 kb genomic DNA 5' flanking region of a β_3-AR transcription start site,

(ii) a deletion construct of a 7 kb genomic DNA located upstream of a β_3-AR transcription start site;

C3 cont

(iii) a nucleic acid comprising a nucleotide sequence that is greater than 80% identical to the nucleotide sequence GCCTCTGGGGAG (SEQ ID NO:1) located 5' to an Sp-1 binding site relative to a transcription start site; and

(iv) a nucleic acid comprising a heterologous coding sequence operatively associated with a promoter and operatively associated with a nucleotide sequence that is greater than 80% identical to the nucleotide sequence GCCTCTGGGGAG (SEQ ID NO:1) in proximity to an Sp-1 binding site, whereby expression of the heterologous protein is regulated in a tissue specific manner.

C4

39. (Amended) A method of screening for a compound that

decreases activity of a β_3-adrenergic receptor (β_3-AR) *trans*-activating factor in human cells, which method comprises:

(a) contacting cells capable of producing the β_3-AR *trans*-activating factor with a test compound; and

(b) detecting a decrease in a level of activity of the β_3-AR *trans*-activating factor, wherein the level of activity of the β_3-AR *trans*-activating factor is detected by a decrease in the level of expression of a reporter gene operatively associated with an isolated nucleic acid selected from the group consisting of:

C 4 cont

(i) about a 7 kb genomic DNA 5' flanking region of a β_3-AR transcription start site,

(ii) a deletion construct of a 7 kb genomic DNA located upstream of a β_3-AR transcription start site;

(iii) a nucleic acid comprising a nucleotide sequence that is greater than 80% identical to the nucleotide sequence GCCTCTGGGGAG (SEQ ID NO:1) located 5' to an Sp-1 binding site relative to a transcription start site; and

(iv) a nucleic acid comprising a heterologous coding sequence operatively associated with a promoter and operatively associated with a nucleotide sequence that is greater than 80% identical to the nucleotide sequence GCCTCTGGGGAG (SEQ ID NO:1) in proximity to an Sp-1 binding site, whereby